



# Group 5 - Breakout

## Triple S Five: Aspen

## Q1) How would you wish to contribute to the national success of EPIC (and the UFS)?

- **Lack of clear understanding of EPIC - hard to answer how the orgs can contribute**
- How does JEDI fit into EPIC; narrow focus similar to JEDI's organizational structure
- EMC in all stages for successful operational metrics
- How will EPIC fund academic involvement?
- Infrastructure and workflow are working well and we can build on these successes
- Focus mechanism to identify metrics to be used for evidence-based decision making
- Common definition/application of the grad student test so its not anecdotal
- CI's contribution is understanding the skill sets needed to connect with students and early scientist
- Science evaluation and use applications; process studies
- Providing governance direction
- Cultural change within all the orgs to align with EPIC



**Q2) In your experience, which funding opportunities have been the most productive? Why? Which criteria are you using?**

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- Long term support and base funding; short term funding for focused goals
  - Seed-like projects have been successful models
  - Funding must come with the expectation of deliverables
  - HFIP project was successful
    - clear goals, metrics, sustained funding
    - Unified model, community supported
  - Long term visiting scientist program for early-mid career scientist -
    - Allows for carrying EPIC with them throughout career
  - Long-term funding for grad students (5yr awards vs 2yr awards) with operational involvement from start
  - Funding opportunities should be targeted to best groups with specific skillsets (ECMWF model)
  - Focus calls for proposals on software development and infrastructure; incl. maintenance



### Q3) EPIC has \$15M in President's Budget for FY20, what are the 3 priority areas for financial investment?

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- Governance of the code
  - cloud based solution to run code
  - user support
  - public release of code
  - community evaluation
  - **enabling a leadership team to coordinate efforts**
  - replicate operational end-to-end system outside of NOAA
  - means to measure progress of EPIC's efforts
  - quick wins should focus on global model and not trying to be everything to everyone
  - improving DA may be low-hanging fruit
  - demonstrable community involvement as a quick win - proper documentation, tutorials, and training session

## Q4) Which organizational structures have best-supported innovation? Communication? Engagement? What criteria are you using?

- Clearly defined management structure is needed
- NOAA is the governing body but can't micro-manage the community partners
- mechanism for involving people to focus on small things for short periods of time (tiger teams)
- **Allowing for risks, willing to have people fail**
- state of the art science tools and computer resources to enable innovation
- need scientists with operational experience
- diverse core of experts who can work with a variety set of contributors
- Management philosophy to allow for equality, diversity, autonomy, common purpose, and core values
- Strong leadership and shared idea of goals

## Q5) What is the balance of governance between institutions and government? How do they share this role?

- Balance should be 50/50 but agile
- Private sector will have IP concerns
- Clearly stated deliverables
- Leverage the UFS governance and build on it
- Small team to focus on the governance structure of EPIC
- Other agencies to be stakeholders and how to balance that with NOAA role
- Look for opportunities for co-development so agencies can contribute
- Operations need to be well represented in governance



## Q6) What are the responsibilities of the governing body?

- Set the mission, vision, and requirements
- Executive body should not define the strategic vision and plans but should implement it
- Hold the community accountable
- Don't establish metrics, but assuring the metrics are aligned with the mission
- Define success and track success from top down
- Constant review
- Give general direction and check progress but not micro-manage
- Not too many layers to the governing body (board of directors of a company)
- Governing body to keep funding flowing
- Workforce recruitment
- O2R and R2O need to be front and center

